

**Notice of Allowability**

Application No.

10/090,714

Examiner

Hung T Vy

Applicant(s)

MINNEMAN, MICHAEL

Art Unit

2821

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/19/2004.
2. ☒ The allowed claim(s) is/are 1 and 5-17.
3. ☒ The drawings filed on 01 March 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 8/19/2004.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

### **Examiner's Amendment**

1. An examiner's amendment to the record appears below. Should the changes and /or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.3.12. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
2. The following claim has been amended upon agreement by applicant during a telephone conversation with Mr. Curtis A, Vock on 8/17/2004.

The following is the amendment:

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1. (Currently Amended) A source modulation system for use in optical data transmission systems and optical data test components, comprising:

a plurality of laser source channels each including a laser source card having a laser source that generates laser output with adjustable signal modulation depth, the laser source channels including a programmably controllable rail selection switch for use in switching between selected rail lines to provide a selected laser source drive input corresponding to a selected rail line;

a modulation controller including a plurality of function generators that are each capable of generating waveforms for use at the laser source channels; and

a signal pathway shared rail system connecting the modulation controller with each of the laser source channels, the shared rail system including a number of rail lines each connecting the modulation controller with the laser source cards, the rail lines being equal in number to the function generators on the modulation controller.

2. (Cancelled)

3. (Cancelled)

4. (Currently Amended) The source modulation system of claim 31, wherein the modulation controller includes

a number of waveform input connectors allocated to selected ones of the rail lines, each waveform input connector being capable of receiving waveform input from an external function generator when an external function generator is connected to the waveform input connector and providing the waveform input as output comprising an external waveform output, and

a corresponding number of programmably configurable waveform selection switches capable of selecting inputs between the corresponding function generator output and the external waveform output, each of the corresponding number of switches being allocated to one of the selected ones of the rail lines.

5. (Currently Amended) The source modulation system of claim 31, ~~wherein rail system includes further including~~ a coherence rail system in communication with each of the laser source cards, the coherence rail system ~~including having~~

a coherence control function generator capable of generating a coherence control waveform output and

a programmably controllable coherence rail switch capable of selecting between the coherence control waveform output and a ground.

6. (Currently Amended) The source modulation system of claim 5, wherein the programmably controllable rail selection switch in ~~each at least one~~ laser source card is capable of selecting between the coherence rail system and the shared rail systems to provide drive input for the laser source.
7. (Currently Amended) The source modulation system of claim ~~35~~, wherein the modulation controller includes a digital modulation rail system including
  - a digital modulation function generator capable of generating a digital waveform output and
  - a programmably controllable digital modulation switch capable of selecting between the coherence control waveform output and a ground.
8. (Currently Amended) The source modulation system of claim 7, wherein ~~each at least one~~ laser source card includes a second switch capable of selecting between the digital modulation rail system and ground.
9. (Currently Amended) The source modulation system of claim 8, wherein the laser source card includes a gain block for adjusting ~~the an~~ amplitude of waveforms from the shared rail system to adjust the modulation depth of the laser output, and wherein the second switch provides a bypass of the gain block.
10. (Original) The source modulation system of claim 1, wherein the function generators are operable to produce on the number of rail lines waveforms selected to include at least two members of the group consisting of square waves, sawtooth waves, and sine waves.
11. (Currently Amended) The source modulation system of claim 1, wherein ~~at least one of the~~ laser source cards ~~contains~~contains a programmably configurable switch for use in accepting a selected one of the waveforms as drive input for the laser source.
12. (Currently Amended) The source modulation system of claim 11, wherein the laser source card includes a gain block that is programmably configurable to adjust an amplitude of the selected ~~waveform from the selected rail line~~, to adjust the modulation depth of the laser output.
13. (Original) The source modulation system of claim 12, wherein the gain block operates by attenuating the amplitude of the waveform.
14. (Original) The source modulation system of claim 12, wherein the laser source card includes a bypass mechanism that is programmably configurable to bypass the gain block.
15. (Original) The source modulation system of claim 1, comprising a mechanism for accepting external sources to drive modulation input for each of the laser source channels.
16. (Original) The source modulation system of claim 15, wherein the mechanism comprises signal input connectors having a one-to one relationship with the number of channels.
17. (Cancelled)

### Reasons for Allowance

2. Claims 2-3 and 17 are canceled
1. Claims 1, and 4-17 are allowed.

The following is an examiner's statement of reason for allowance:

None of the references of record teaches or suggests the claimed a source modulation system for use in optical data transmission systems and optical data test components, comprising: a plurality of laser source channels each including a **laser card** having a laser source that generates laser output with adjustable signal modulation depth, the laser source channels including a **programably controllable rail selection switch** for use in switching between selected rail lines to provide a selected laser source drive input corresponding to a selected rail line; a shared rail system connecting the modulation controller with each of the laser channels, the shared rail system including a number of rail lines each connecting the modulation controller with the laser source cards, the rail lines being equal in number to the function generators on the modulation on the modulation controller.

### Remarks

The "Preliminary amendment" filed on 8/20/2004 via fax has been accepted as an "Exminer's amendment" to reflect an agreement reached 9/17/2004 over a telephone interview.

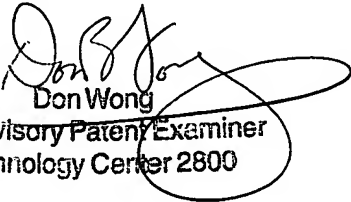
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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Vy whose telephone number is (571) 272-1954. The examiner can normally be reached on Monday-Friday 8:30 am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Hung T. Vy  
Art Unit 2821  
March 24, 2004

  
Don Wong  
Supervisory Patent Examiner  
Technology Center 2800

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